WHAT IS CLAIMED IS:

1. A method for screening lubricating oil compositions, under program control, comprising the steps of:

(a) providing a plurality of different lubricating oil composition samples comprising (i) a major amount of at least one base oil of lubricating viscosity and (ii) a minor amount of at least one lubricating oil additive;

(b) measuring wear stability of each sample to provide wear stability data for each sample; and,

(c) outputting the results of step (b).

2. The method of claim 1, wherein the step of measuring wear stability is selected from the group consisting of an extreme pressure wear test, hydrodynamic wear test, corrosive wear test and a combination thereof.

3. The method of claim 2, wherein the step of measuring wear stability further comprises the step of selectively changing a variety of conditions for measuring wear stability in accordance with the program control, the variety of conditions being selected from the group consisting of duration of the at least one test, load generated during the at least one test, acid amount delivered during the at least one test and a combination thereof.

4. The method of claim 2, wherein the extreme pressure, hydrodynamic and corrosive wear tests are conducted simultaneously in accordance with the program control.

5. The method of claim 2, wherein the extreme pressure, hydrodynamic and corrosive wear tests are conducted sequentially in accordance with the program control.

6. The method of claim 2, wherein the corrosive wear test is conducted simultaneously with at least one of the extreme pressure and hydrodynamic tests in accordance with the program control.

7. The method of claim 2, further comprising the step of systemizing the outputted results of each of the extreme pressure, hydrodynamic and corrosive wear tests, thereby assembling a library of the outputted results associated with each of the plurality of lubricating oil compositions, wherein each one of the wear tests is selected to be indicative of performance of a selected part of or an entire running internal combustion engine.

8. The method of claim 7, further comprising the step of storing a reference value selected from desired operating conditions or statutory requirements and comparing the outputted results of at least one of the extreme pressure, hydrodynamic and corrosive wear tests of the plurality of lubricating oil compositions to the stored reference value in accordance with the program control.

9. The method of claim 8, further comprising the step of assigning a "pass/fail" value to each of the outputted results of the plurality of lubricating oil compositions stored in the library upon comparison thereof to the reference value in accordance with the program control.

10. The method of claim 9, further comprising the steps of selecting a group of the lubricating oil compositions based on the "passed/fail" values and providing a cost analysis of each of the selected one of the group of lubricating oil compositions to select at least one optimal lubricating oil composition.

11. The method of claim 7, further comprising the step of analyzing a change of the outputted results of each of the extreme pressure, hydrodynamic and corrosive wear stability tests stored in the library upon changing the plurality of conditions in accordance with the program control.

12. The method of claim 11, wherein the step of analyzing includes generating a slope associated with the outputted results of each of the extreme pressure, hydrodynamic and corrosive wear stability tests of the plurality of lubricating oil compositions to identify a pattern of performance thereof in response to changing of the plurality of conditions in accordance with the program control.

13. The method of claim 1, wherein the at least one lubricating oil additive is selected from the group consisting of antioxidants, anti-wear agents, detergents, rust inhibitors, dehazing agents, demulsifying agents, metal deactivating agents, friction modifiers, pour point depressants, antifoaming agents, co-solvents, package compatibilisers, corrosion-inhibitors, ashless dispersants, dyes, extreme pressure agents and mixtures thereof.

14. The method of claim 2, further comprising the step of displacing the plurality of lubricating oil compositions to a testing station configured to provide at least one of the extreme pressure wear stability test, hydrodynamic wear test, and the corrosive wear test to determine anti-wear properties of each of the tested lubricating oil compositions in accordance with the program control.

15. The method of claim 14, further comprising the steps of storing each of the plurality of lubricating oil composition in a respective vessel, and arranging a plurality of vessels in a predetermined sequence.

16. The method of claim 15, wherein a robotic assembly sequentially retrieves and displaces the plurality of vessels to the testing station in accordance with the program control for determination of anti-wear properties of the plurality of lubricating oil compositions.

17. The method of claim 15, wherein a robotic assembly selectively retrieves and delivers individual vessels to the testing station in accordance with the program control for determination of anti-wear properties of the plurality of lubricating oil compositions.

18. The method of claim 15, further comprising the step of providing the testing station with at least one apparatus configured to conduct the at least one of extreme pressure, hydrodynamic and wear stability tests, the apparatus being selected from the group consisting of a Pin and Vee Block, a Four-Ball Block and a combination thereof.

19. A method for screening lubricating oil compositions, under program control, comprising the steps of:

(a) providing a plurality of different lubricating oil composition samples comprising (i) a major amount of at least one base oil of lubricating viscosity and (ii) a minor amount of at least one lubricating oil additive;

(b) measuring extreme-pressure wear stability of each sample to provide extreme-pressure wear data for each sample; and,

(c) outputting the results of step (b), thereby assembling an electronic library.

20. A method for screening lubricating oil compositions, under program control, comprising the steps of:

(a) providing a plurality of different lubricating oil composition samples comprising (i) a major amount of at least one base oil of lubricating viscosity and (ii) a minor amount of at least one lubricating oil additive;

(b) measuring hydrodynamic wear stability of each sample to provide hydrodynamic wear stability data for each sample; and,

(c) outputting the results of step (b), thereby assembling an electronic library.

21. A method for screening lubricating oil compositions, under program control, comprising the steps of:

(a) providing a plurality of different lubricating oil composition samples comprising a major amount of at least one base oil of lubricating viscosity and a minor amount of at least one lubricating oil additive;

(b) measuring corrosive wear stability of each sample to provide corrosive wear stability data for each sample; and,

(c) outputting the results of step (b), thereby assembling an electronic library.

22. A system for screening a plurality of lubricating oil compositions, comprising:

(a) a plurality of test receptacles, each containing a different lubricating oil composition each comprising (i) a major amount of at least one base oil of lubricating viscosity and (ii) a minor amount of at least one lubricating oil additive;

(b) a moving unit configured to individually position each of the plurality of lubricating oil compositions in a testing station for measurement of wear stability of each of the lubricating oil compositions; and,

(c) a controller coupled to the testing station and configured to receive and store the measurements of wear stability of each of the plurality of lubricating oil compositions.

23. The system of claim 22, wherein the controller is provided with software for automatically receiving and storing the measurements of wear stability of each of the plurality of lubricating oil compositions.

24. The system of claim 23, wherein the controller is provided with software for assembling the stored measurements of wear stability of each of the plurality of lubricating oil compositions processed on the testing station in an electronic library.

25. The system of claim 24, wherein the testing station includes at least one apparatus configured to conduct at least one wear stability test for measuring the wear stability of each of the plurality of lubricating oil compositions.

26. The system of claim 25, wherein the at least one wear stability test is selected from the group consisting of an extreme pressure test, hydrodynamic test, corrosive test and a combination thereof, the at least one apparatus being coupled to the controller having software, which executes thereon for selectively changing a plurality of conditions for the at least one wear stability test, the plurality of conditions being selected from the group consisting of duration of the at least one wear stability test, load generated during

the at least one wear stability test, acid amount delivered during the at least one wear stability test and a combination thereof.

27. The system of claim 26, further comprising at least one additional apparatus coupled to the controller and configured to conduct each of the extreme pressure, hydrodynamic and corrosive tests of the plurality of lubricating oil compositions.

28. The system of claim 27, wherein the at least one additional apparatus operates simultaneously with the at least one apparatus, the controller being provided with software operating thereon for controlling each of the simultaneously operating apparatuses so that each one of the apparatuses conducts a respective test selected from the group consisting of an extreme pressure, hydrodynamic and corrosive wear stability test.

29. The system of claim 28, wherein the simultaneously operating apparatuses each conduct a respective one of the extreme pressure, hydrodynamic and corrosive tests different from the test conducted on the other one of simultaneously operating apparatuses.

30. The system of claim 29, wherein one of the simultaneously operating apparatuses is configured to conduct the corrosive test simultaneously with one of the extreme pressure and hydrodynamic tests.

31. The system of claim 26, wherein the controller has software operating thereon for analyzing a rate of change of a result of each of the extreme pressure, hydrodynamic and corrosive tests of a respective one of the plurality of lubricating oil compositions to select multiple groups thereof, each of which includes the lubricating oil compositions better suited for a particular one of the extreme pressure, hydrodynamic and corrosive tests.

32. The system of claim 31, wherein the controller further has software operating thereon for optimizing each of the selected multiple groups by balancing a cost of each of the lubricating oil compositions included in a respective one of the selected multiple groups and a respective wear-stability result of the each of the lubricating oil compositions of the selected group.

33. The system of claim 22, wherein the plurality of lubricating oil compositions each is contained in a respective test receptacle.

34. The system of claim 33, wherein the moving unit includes a robotic arm configured to grasp and deliver each of the test receptacles to the testing station.

35. The system of claim 33, wherein each test receptacle has a bar code affixed to an outer surface thereof.